

Amendment  
Appln. No. 10/781,007

Attorney Docket 5000-1-459

### REMARKS

Reconsideration and withdrawal of all grounds of objection and rejection in the pending Office Action are respectfully requested in light of the above amendments and the following remarks. Claims 1-10, as amended, remain pending herein. Claims 1, 3 and 5 are independent claims.

Claim 1 stands rejected under 35 U.S.C. §112, first paragraph, as allegedly not being enabling to a person of ordinary skill in the art. Claims 1 and 2 are rejected under 35 U.S.C. §101 for statutory double patenting over claims 5-10 of the same application for allegedly reciting the same claimed subject matter. Claims 1-10 stand rejected under 35 U.S.C. §103(a) over Applicant's Admitted Prior Art (Figs. 1 and 2 and page 1, line 10, to page 5, line 11, in view of an article by N. Terada *et al.*, "An MPEG2-Based Digital CATV and VOD system using ATM-PON Architecture" (IEEE Proceedings of Multimedia, 1996) ("Terada"). Claim 10 stands further rejected over page 3, lines 1-5 of Applicant's Admitted Prior Art.

Applicant respectfully traverses all grounds of rejection for the reasons indicated herein below.

With regard to the rejection of claims 1-2 under 35 U.S.C. §101, Applicant respectfully submits that the claimed subject matter, particularly as amended, is not a statutorily-prohibited double patenting of the subject matter of claims 5-10, as the claims recite distinguishable recitations. Reconsideration and withdrawal of this ground of rejection are respectfully requested.

With regard to the rejections under 35 U.S.C. §112, first paragraph, claim 1 has been amended to recite in part that an Optical Line Termination (OLT) for assigning VCIs to each

Amendment  
Appln. No. 10/781,007

Attorney Docket 5000-1-459

efrcciving single-channel multiple program transport streams (MPTSs) received from a plurality of broadcasting service providers, and converting the single-channel MPTSs into a plurality of asynchronous transfer mode (ATM) cells and assigning a virtual channel identifier (VCI) to each of the ATM cells.

Claim 3 has also been amended regarding the order of the assignment of the VCI. Support for the above amendments to claims 1 and 3 is found at page 9, lines 14-21 of the specification, which discloses that the OLT 11 converts each MPEG2-TS in a plurality of single-channel MPTSs into ATM cells and assigns an individual VCI to each of the ATM cells.

Applicant respectfully submits that the specification and drawings fully enables the subject matter of claims 1 and 3 to a person of ordinary skill in the art. Reconsideration and withdrawal of this ground of rejection are respectfully requested.

With regard to the rejections under 35 U.S.C. §103(a), Applicant respectfully submits that claim 1 has been amended to recite in part that the OLT outputting a VCI frame to the ONU comprising the header information and a payload portion of the converted single-channel MPTS.

Support for this change is found in the specification at least at page 10, lines 2-10 and FIG. 4.

The combination of AAPA and Terada fails as a combination to disclose or render obvious any of independent claims 1, 3 and 5. First, Terada discloses at the cited section 4.1 (page 528, left-hand column) that the CATV center receives program channels that are analog CATV signals, each of which are encoded into MPEG streams for transmission in a full-digital network. These streams are in turn "multiplexed into one MPEG2 transport stream" which are then encapsulated in AAL-5 ATM cells, and that a maximum of 55 CATV programs are multiplexed with different VCIs, to be sent to the ONU. Terada does disclose anything about the analog CATV signals received being a single channel MPTS, and nor does the AAPA.

Amendment  
Appln. No. 10/781,007

Attorney Docket 5000-1-459

An advantage of the present invention is that the VCI is assigned to each of the converted broadcasting data, and the broadcasting channel can be divided in the ONU according to the VCI when the broadcast data are converted into ATM cells.

Thus, for at least the above reasons, none of the present claims would have been obvious to a person of ordinary skill in the art at the time of invention.

In addition, the combination of AAPA and Terada fails to disclose or suggest the OLT outputting a VCI frame to the ONU comprising the header information and a payload portion of the converted single-channel MPTS. As the AAPA, Terada, and the combination of teachings is silent with regard to a converted single-channel MPTS, the combination fails to disclose or render obvious this recitation of claim 1. Thus claims 1 and 2 are allowable at least for this reason.

Finally, claim 5 would not have been obvious to a person of ordinary skill in the art at the time of invention at least for the recitation of "an OLT for converting digital broadcasting data received from a plurality of service providers without modulation into optical signals in the form of a plurality of ATM cells and for assigning an individual VCI to each of the ATM cells and outputting the ATM cells as output signals". Support is found at least at page 12, lines 9-15.

One advantage of the invention recited in claim 5 that is a reason in part that claim 5 is non-obvious over the combination of AAPA and Terada is that by not modulating the broadcast data, the broadcast channel data can be easily connected to other communication networks. As disclosed in the specification at page 12, lines 9-15, since each broadcasting channel data is transmitted as individual data without following a cable network standard the broadcasting channel data can be easily connected to communication networks of various types.

For at least the above reasons, Applicant respectfully submits that all grounds of rejection

Amendment  
Appn. No. 10/781,007

Attorney Docket 5000-1-459

under 35 U.S.C. §103(a) are respectfully requested.

With regard to claims dependent from one of claim 1, 3 or 5, Applicant respectfully submits that these claims are allowable at least for dependency from a base claim that is believed patentable for the reasons expressed above, and because of a separate basis for patentability. Individual consideration of all of the claims on their own merits are respectfully requested.

Nor would the combination of elements, as recited in the present claims, have been obvious to a person of ordinary skill in the art at the time of invention as being within the ordinary level of skill at the time of invention (*KSR International v. Teleflex*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007)). Reconsideration and withdrawal of this ground of rejection are respectfully requested.

For all the foregoing reasons, Applicant respectfully submits that all grounds of rejection in the Office Action are overcome. A Notice of Allowance is respectfully requested.

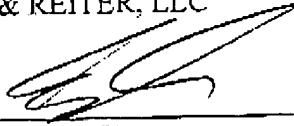
In the event that any additional fee is required to continue the prosecution of this Application as requested, please charge such fee to Deposit Account No. 502-470.

Amendment  
Appln. No. 10/781,007

Attorney Docket 5000-1-459

Should the Examiner deem that there are any issues which may be best resolved by telephone, please contact Applicant's undersigned representative at the number listed below.

Respectfully submitted,  
CHA & REITER, LLC

  
By: Steve Cha  
Attorney for Applicant  
Registration No. 44,069

Date: 4/8/08

**Mail all correspondence to:**  
Steve Cha, Registration No. 44,069  
CHA & REITER, LLC  
210 Route 4 East, #103  
Paramus, NJ 07652  
Tel: 201-226-9245  
Fax: 201-226-9246